

Remarks:

Reconsideration of the application is requested.

Claims 1-14 remain in the application. Claims 3, 5, and 12-13 have been amended.

In item 1 on page 2 of the above-identified Office action, the drawings have been objected to as not showing the reference numeral 15 under 37 CFR 1.84(p)(5). The Examiner's comments in the Office action together with the Examiner's comments in the *Advisory Action* dated March 6, 2002, have been noted and Applicant has enclosed a marked-up drawings of the originally filed drawing of Fig. 4 wherein the changes to the originally filed drawing of Fig. 4 are marked in red. Entry of the corrected Fig. 4 is hereby requested (copy thereof is enclosed).

In item 2 on page 2 of the Office action, the drawings have been objected to as not showing the feature "inner contour around which said heat-expansible element is retained" of the invention specified in the claims under 37 CFR 1.83(a).

The Examiner is directed to Fig. 4 of the drawings, in particular to the bottom left side of Fig. 4, the reference

numerals 8 and 2 indicating the heat-expansible element 8 retained in the inner contour 2.

In item 3 on page 3 of the Office action, the specification has been objected to as failing to provide proper antecedent basis for "latching opening" and "latching web" in the specification. The Examiner is directed to page 7, line 26, and page 8, line 14, of the instant application disclosing a "latching opening 4" and a "latching web 10", respectively. Consequently it is believed that there is proper antecedent basis and support for these terms in the specification.

In item 5 on page 3 of the Office action, claims 5 and 12-14 have been rejected as being indefinite under 35 U.S.C. § 112, first paragraph.

In item 7 on page 4 of the Office action, claims 5 and 12-14 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph.

More specifically, the Examiner has stated that in regard to claim 5 "[t]he specification does not appear clear and complete as to 'said latching opening being disposed within said inner contour of said first half-shell' or 'said latching web being disposed in said region of said second half-shell?'". The Examiner is directed to Fig. 1 showing the

latching opening 4 disposed within the inner contour 2 of the first half-shell, and to Fig. 1 showing the latching web 10 disposed in a region of the second half-shell.

In the last paragraph on page 4 of the Office action, the Examiner asked in regard to claim 12 "would an 'inner contour' enclose the heat-expansible element?". Claims 12 has been amended to more clearly recite that the heat-expansible element is retained around the inner contour. The Examiner asked "is the 'inner contour recited in claims 12 the same as that introduced within claim 1?" Claim 12 is dependent upon claim 11 and not claim 1.

In the first paragraph on page 5 of the Office action, the Examiner asked in regard to claim 13 "what ... is being defined by 'said free gap is bounded inwardly by said inner contour and said heat-expansible element is disposed around said inner contour'?". The Examiner's comments have been noted and the appropriate corrections have been made to claim 13.

In the second paragraph on page 5 of the Office action, the Examiner asked in regard to claim 14 "what ... is being defined by 'said heat-expansible element has a shape corresponding substantially to said free gap formed by said latched half-shells'?". The Examiner is directed to Fig. 2 showing the shape of the heat-expansible element 8 and requested to

compare the shape of the heat-expansible element 8 with the shape of the inner contour 2 shown in Fig. 1. The shape of the inner contour defines the free gap formed between the latched half-shells.

In the third paragraph on page 5 of the Office action the Examiner stated that it is not clear "as to what specifically comprises the claimed 'latching device'". The Examiner's comments have been noted and the appropriate corrections have been made to claim 5. Claim 5 now recites the latching device illustrated in Figs. 1 and 3. The latching device recited in claim 3 only uses "a mushroom-shaped latching element disposed on one of said half-shells and a corresponding latching cylinder disposed on another one of said half-shells."

It is accordingly believed that the specification and the claims meet the requirements of 35 U.S.C. § 112, first and second paragraphs. Should the Examiner find any further objectionable items, Counsel would appreciate a telephone call during which the matter may be resolved. The above-noted changes to the claims are provided solely for the purpose of satisfying formal requirements, clarification, or are made solely for cosmetic reasons to clarify the claims. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the claims for any reason related to the statutory requirements for a patent.

In item 9 on page 6 of the Office action, claims 1-2, 4-5, and 7-12 have been rejected as being anticipated by *Miura et al.* (US 4,369,608) under 35 U.S.C. § 102.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 (similarly claim 11) calls for, *inter alia*:

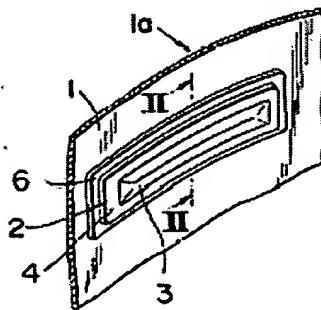
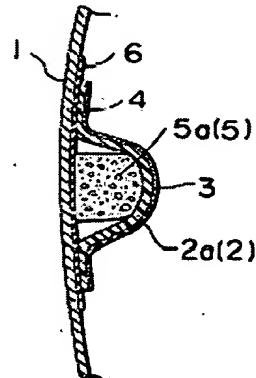
a heat-expansible element constructed as a contoured **ring-like** plate;

a retaining device to be positioned in a cross-sectional region of a cavity, said retaining device having two separately produced half-shells, one of said half-shells having an inner contour, said half-shells being latched to one another using a latching device at a distance from one another forming a free gap between said half-shells, and said heat-expansible element being retained in the free gap between said half-shells.

In the *Response to Arguments* on page 7 of the Office action, the Examiner replied that "Miura et al. Expansible shaped

element 15/5 does meet the limitation of 'heat-expansible element'". The Examiner stated that "Miura et al. as at col. 3, lines 12-13 or col. 2, lines 53-55, does disclose a 'heat-expansible' material."

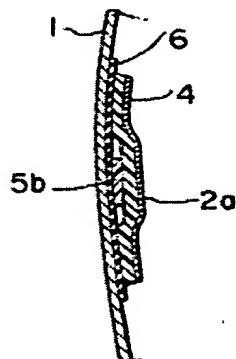
The Examiner is correct that the above-noted passages of Miura et al. disclose "heat-expansible material". However, the disclosure in col. 2, lines 53-55, is in the context of the first embodiment illustrated in Figs. 2A and 2B. However, in Figs. 2A and 2B the "heat-expansible material" is **not** constructed as a contoured **ring-like** plate. This can be clearly seen from in Figs. 2A and 2B re-produced below:

**FIG.2A****FIG.2B**

Similarly, the disclosure in col. 3, lines 12-13, is in the context of producing a door panel wherein "[a]s shown in FIG. 3, a strip-like starting material 5b which can be foamed when

heated is bonded to the film 6." However as can be clearly seen from Fig. 3 re-produced below, the "starting material 5b" is **not** contoured **ring-like**.

**FIG. 3**



The second embodiment illustrated in Figs. 4A and 4B shows a "lattice-like projection" (col. 3, lines 55-56). However, in this embodiment a foamed resin is used.

Consequently, it is believed that *Miura et al.* do not disclose (or suggest) a (i) **heat-expansible** element constructed as a (ii) contoured **ring-like** plate, as recited in the claims.

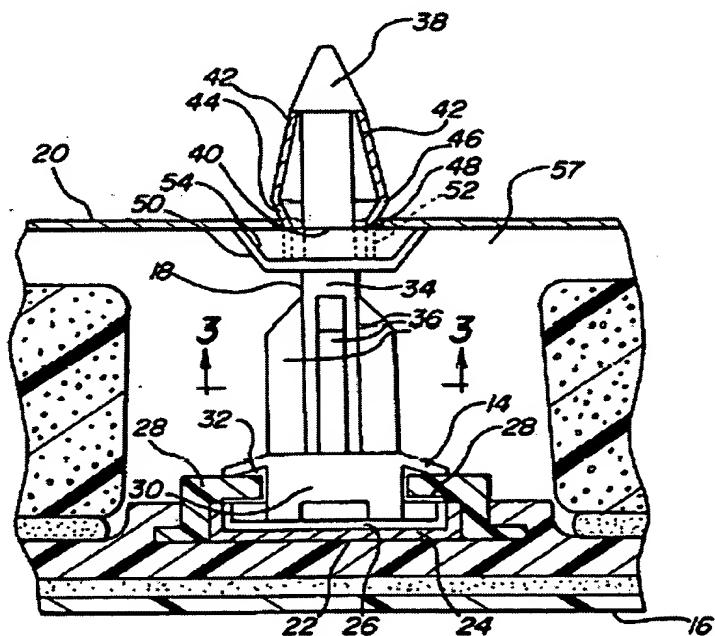
In item 10 on page 6 of the Office action, claims 1-9 and 11-14 have been rejected as being anticipated by *Hull et al.* (US 5,419,606) under 35 U.S.C. § 102.

In item 12 on page 7 of the Office action, claims 1-14 have been rejected as being obvious over *Hull et al.* in view of any

of *Steward et al.* (US 4,211,590), *Tusim et al.* (US 6,213,540), *Doerer* (US 4,330,584), or *Wycech* (US 6,287,666) under 35 U.S.C. § 103.

In the *Response to Arguments* in the first paragraph on page 8 of the Office action, the Examiner replied that "an expansible shaped element can be seen along either side of latching means 18 which element is of a contoured ring-like plate inserted within the retaining devices of *Hull et al.*"

Fig. 2 of *Hull et al.* is re-produced below:



As can be seen, either side of latching means 18 are not surrounded by an expansible shaped element but (open) space. *Hull et al.* contain no disclosure regarding expandable or heat-expandable elements. Consequently, *Hull et al.* do not

disclose a heat-expansible element and, in particular, do not disclose or suggest a heat-expansible element having a contoured ring-like shape placed in the gap of two half-shells, as recited in the claims.

Clearly, neither *Miura et al.* nor *Hull et al.* show the features recited in claims 1 and 11 of the instant application. Therefore, the invention as recited in claims 1 and 11 of the instant application is believed not to be anticipated by either *Miura et al.* or *Hull et al.*.

One underlying inventive concept of the invention of the instant application is to use a retaining device containing heat-expansible material. The heat-expansible material, as stated on page 4, lines 12-20, of the instant application, "is only provided wherever it is actually required for sealing purposes and, with a predetermined flow direction, can also expand without obstruction in the direction of the hollow-body wall which is to be sealed, while the material flow to the center of the half-shell is bounded by the inner contour provided on one half-shell." The advantages of the recited retaining device are disclosed on page 4, lines 1-10, of the instant application.

As discussed above, *Hull et al.* do not disclose a heat-expansible element and, in particular, do not disclose or

suggest a heat-expansible element having a shape corresponding substantially to a free gap between two half-shells, as recited in claims 1 and 11. Considering the deficiencies of the primary reference *Hull et al.*, it is believed not to be necessary at this stage to address the secondary references (*Steward et al.*, *Tusim et al.*, *Doerer*, and *Wycech*), and whether or not there is sufficient suggestion or motivation with a reasonable expectation of success for modifying or combining the references, as required by MPEP § 2143. Therefore, the invention as recited in claims 1 and 11 of the instant application is believed not to be obvious over *Hull et al.* in view of any of *Steward et al.*, *Tusim et al.*, *Doerer*, or *Wycech*.

It is accordingly believed to be clear that neither *Miura et al.* nor *Hull et al.* show the features of claims 1 and 11, and that *Hull et al.* in view of any of *Steward et al.* or *Tusim et al.* or *Doerer* or *Wycech* do not suggest the features of claims 1 and 11. Claims 1 and 11 are, therefore, believed to be patentable over the art and since claims 2-9 and 13-14 are ultimately dependent on claim 1 and claim 12 is dependent on claim 11, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-14 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, the Examiner is respectfully requested to telephone Counsel so that, if possible, patentable language can be worked out. In the alternative, the entry of the amendment is requested as it is believed to place the application in better condition for appeal, without requiring extension of the field of search.

Petition for extension is herewith made. The extension fee for response within a period of one month pursuant to Section 1.136(a) in the amount of \$ 110.00 in accordance with Section 1.17 is enclosed herewith.

Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,



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Version with markings to show changes made:

Claim 3 (thrice amended). The configuration according to claim 2, wherein said latching device comprises a mushroom-shaped latching element disposed on one of said half-shells and a corresponding latching cylinder disposed on another one of said half-shells.

Claim 5 (4 times amended). The configuration according to claim 1, wherein said two half-shells are first and second half-shells, said first half-shell having said inner contour, said second half-shell having a region corresponding to said inner contour, said latching device comprising a latching opening and a corresponding latching web, said latching opening being disposed within said inner contour of said first half-shell and said latching web being disposed in said region of said second half-shell, and a mushroom-shaped latching element disposed on said first half-shells and a corresponding latching cylinder disposed on said second half-shells.

Claim 12 (thrice amended). The configuration according to claim 11, wherein one of said two half-shells has an inner contour, [around which] and said heat-expansible element is retained around said inner contour.

Claim ~~12~~<sup>(3)</sup> (amended). The configuration according to claim 1,  
wherein said free gap is bounded inwardly by said [inner  
contour and said] heat-expansible element [is] disposed around  
said inner contour.